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Indian Standard

GENERAL REQUIREMENTS AND TESTING OF CERTIFIED LOWER-DECK HALF-SIZE CONTAINERS FOR HIGH CAPACITY AIRCRAFT

UDC 621·869·888·8 : 656·7

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Indian Standard

GENERAL REQUIREMENTS AND TESTING OF CERTIFIED LOWER-DECK HALF-SIZE CONTAINERS FOR HIGH CAPACITY AIRCRAFT

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Indian Standard

GENERAL REQUIREMENTS AND TESTING OF CERTIFIED LOWER-DECK HALF-SIZE CONTAINERS FOR HIGH CAPACITY AIRCRAFT

0. FOREWORD

0.1 This Indian Standard was adopted by the Indian Standards Institution on 28 February 1978, after the draft finalized by the Containers and Pallets for Air Transport Sectional Committee had been approved by the Marine, Cargo Movement and Packaging Division Council.

0.2 The objective of this standard is to establish the minimum acceptable requirements for certified lower-deck containers that could be used in the lower-deck of wide-bodied transport airplanes like B-747, L-1011, DC-10 and A-300B, etc.

0.3 The lower-deck container is also intended for unitization of baggage, cargo or mail during ground-handling and transportation. The containers restrain the contents and thereby ensure their safety in flight. These containers are half-size related to the width across the aircraft.

0.4 This standard does not in any way limit design approaches by the vendors and the specific requirements of operators.

0.5 In order to facilitate international co-ordination on the subject this standard has been based on, and compatible with IATA Specification 50/5, International Air Transport Association (IATA) Specification on LD1, LD2 and LD3 and National Aeroplane Standard NAS 3610, Rev 5.

0.6 The certified lower-deck containers, interface directly with the aircraft restraint systems and, therefore, are to be certified by the airworthiness authority as meeting the safety requirements of the particular aircraft.

0.7 Assistance has also been derived from U. S. Federal Test Method Standard No. 406 (Method No. 1091)-1961.

0.8 For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of a test, shall be rounded off in accordance with

IS : 2-1960*. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

1. SCOPE

1.1 This standard specifies design, fabrication and performance testing of two sizes of general purpose, lower-deck, half-size, pre-loaded containers for transportation by air.

NOTE — The Size I containers are suitable for use in high capacity aircraft like B-747, DC-10, L-1011 and A-300B. The Size II containers are bigger in volume and are suitable for B-747 airplanes only.

2. TERMINOLOGY

2.1 For the purpose of this standard, the terms and definitions given in IS : 7073-1973† shall apply.

3. DIMENSIONS

3.1 The dimensions of the containers shall be as given in Fig. 1 and 2.

4. GENERAL REQUIREMENTS

4.1 The container shall consist of complete enclosure (top, base and sides at inboard and outboard) with two doors (one forward end and one aft end) and provision for adjustable shelves.

4.2 The structure shall be designed to make the maximum internal space available for loading cargo within the limit of space required for latch and structural design. The minimum clear opening shall be 1 480 mm wide and 1 520 mm high, except where gussets and shelves are used (*see* Fig. 3).

4.3 The bottom surface of the base of the container shall be capable of withstanding the movements on airplane conveyor system as well as on the commercial type of conveyors used by ground-handling equipment and at terminals.

4.4 The design value of gross permissible load for Size I and Size II containers shall be not less than 1 590 kg.

NOTE — Sizes I and II refer to the general purpose unit for carriage of luggage, cargo or mail, whereas Sizes IC and IIC are meant for the cargo unit only.

4.5 Decompression — The container shall be compatible with the aircraft lower compartment, when rapid decompression occurs. The relief areas with a minimum total area of 65 cm^2 shall be provided (this may include the clearance between doors and container base).

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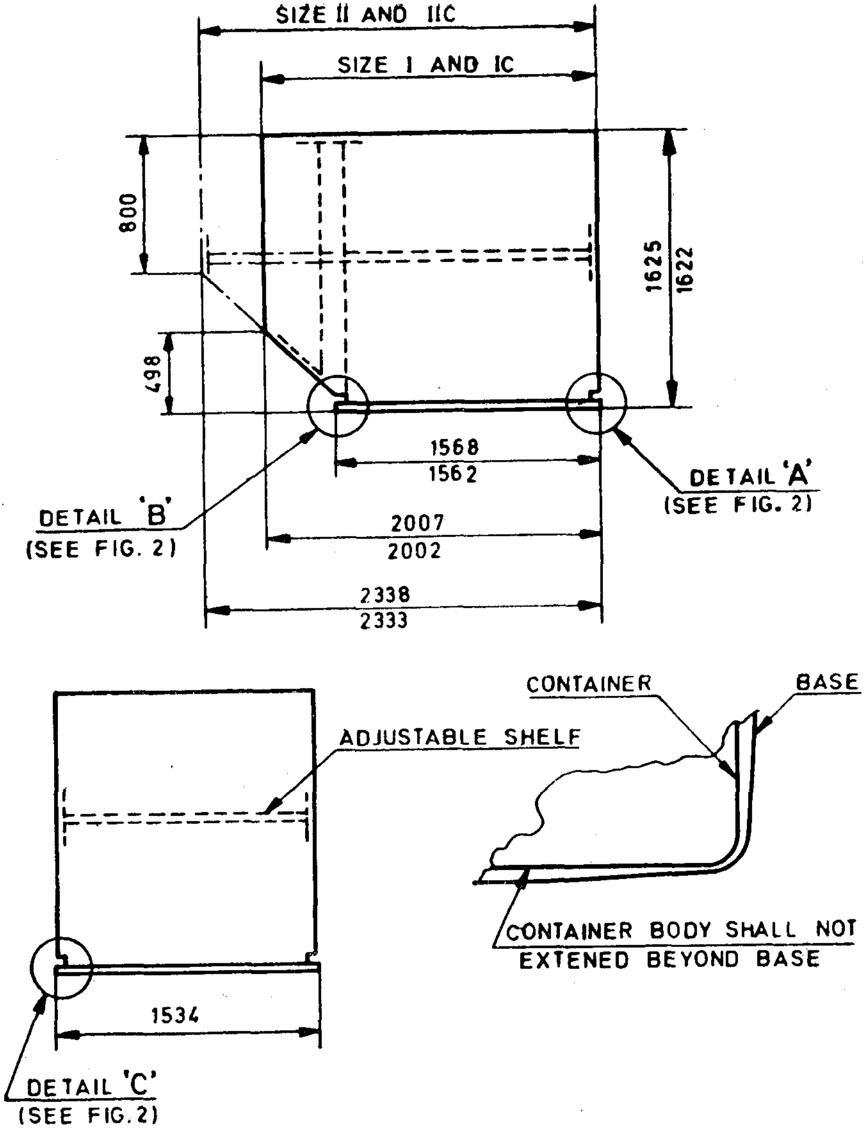
*Rules for rounding off numerical values (*revised*).

†Glossary of terms relating to air cargo pallets and containers.



Size I — Internal Vol 4·5 m^3 Approx.
Size II — Internal Vol 4·9 m^3 Approx.
All dimensions in millimetres.

FIG. 1 LOWER-DECK HALF-SIZE CONTAINER OF SIZES I, II, IC AND IIC

4.6 The design, materials and construction of the container shall be such that the container withstands ultimate design load given in **10.2.4**. Maintainability and repairability of the container shall be factors in the design to ensure the minimum need for maintenance. Any such maintenance and repair should be able to be done with ease and at minimum cost.

4.7 In selecting the material and the process, due consideration shall be given to the extremely hard usage to which the container will be subjected to ensure a long service life.

4.8 All metal parts shall be suitably protected against corrosion.

4.9 All non-metallic materials which are liquid absorbent shall be sealed or treated to prevent liquid absorption.

5. TARE

5.1 The design objective for the tare of the container shall be 127 kg (maximum) plus 18 kg (maximum) for shelves. The mass of the empty container with items like handles, tie-down fittings, placards, shelves, etc, shall not exceed 145 kg.

6. CONSTRUCTION

6.1 Base

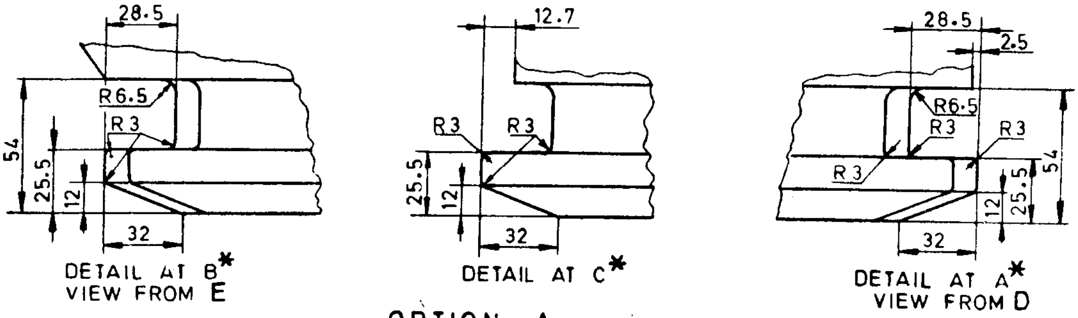
6.1.1 The size and shape of the container base shall be as shown in Fig. 1 and 2. The base shall be enclosed on all four sides by an extruded aluminium edge with separate corner fittings with shear ties at the joints. The base shall not contain rough or sharp edges potentially dangerous to personnel, cargo airplane or terminal handling equipment.

6.1.2 The construction of the base shall be designed for strength and durability to withstand harsh service handling. The base shall be structurally attached to and shall form an integral part of the container body. The base assembly shall be replaceable with normal hand tools.

6.1.3 The base assembly shall satisfactorily withstand ball indentation test, ball castor test, abrasion test and local indentation load test (*see* **10.2**).

6.1.4 The base shall be able to withstand compression loads equivalent to six containers at a gross load of 11 580 kg, applied fore and aft.

NOTE — As the forward and aft movements are prevented by keeping 7 boxes in series and anchoring the box by latches, the cumulative fore and aft forces of 6 containers will be borne by the base. Hence the gross load of 11 580 kg.



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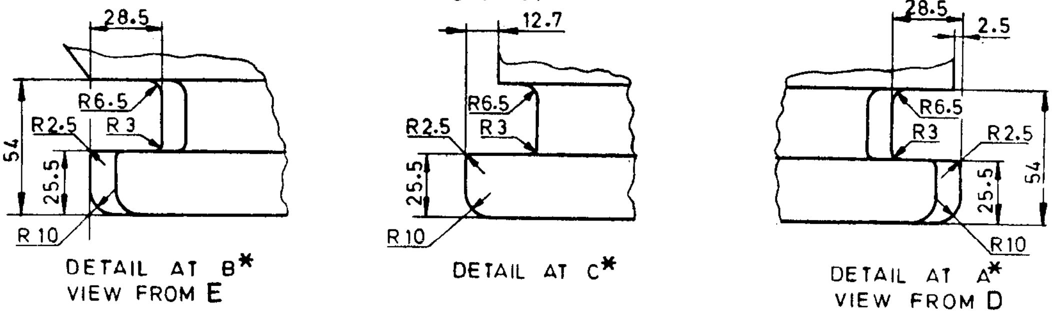

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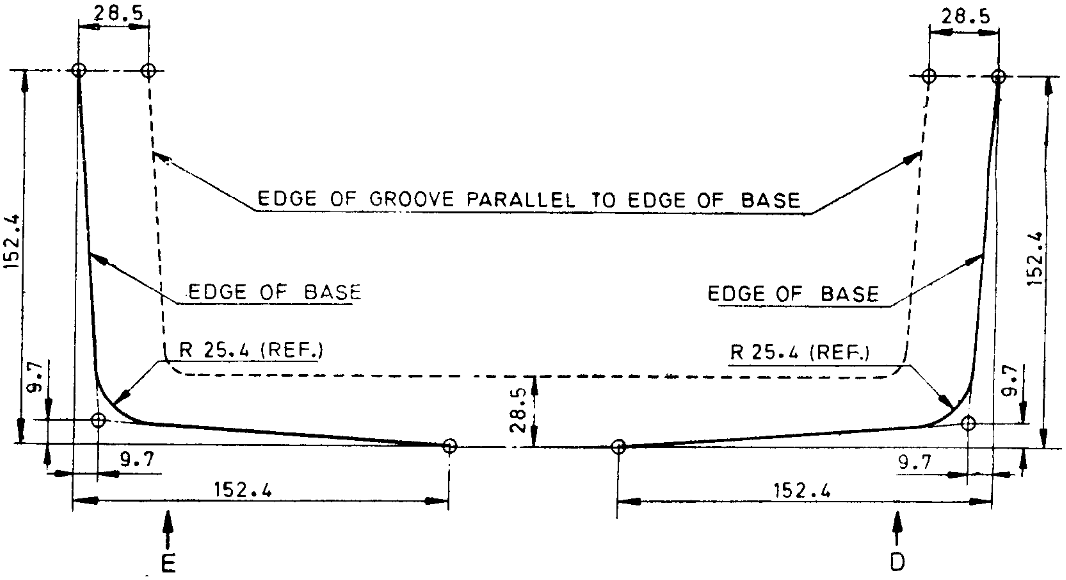
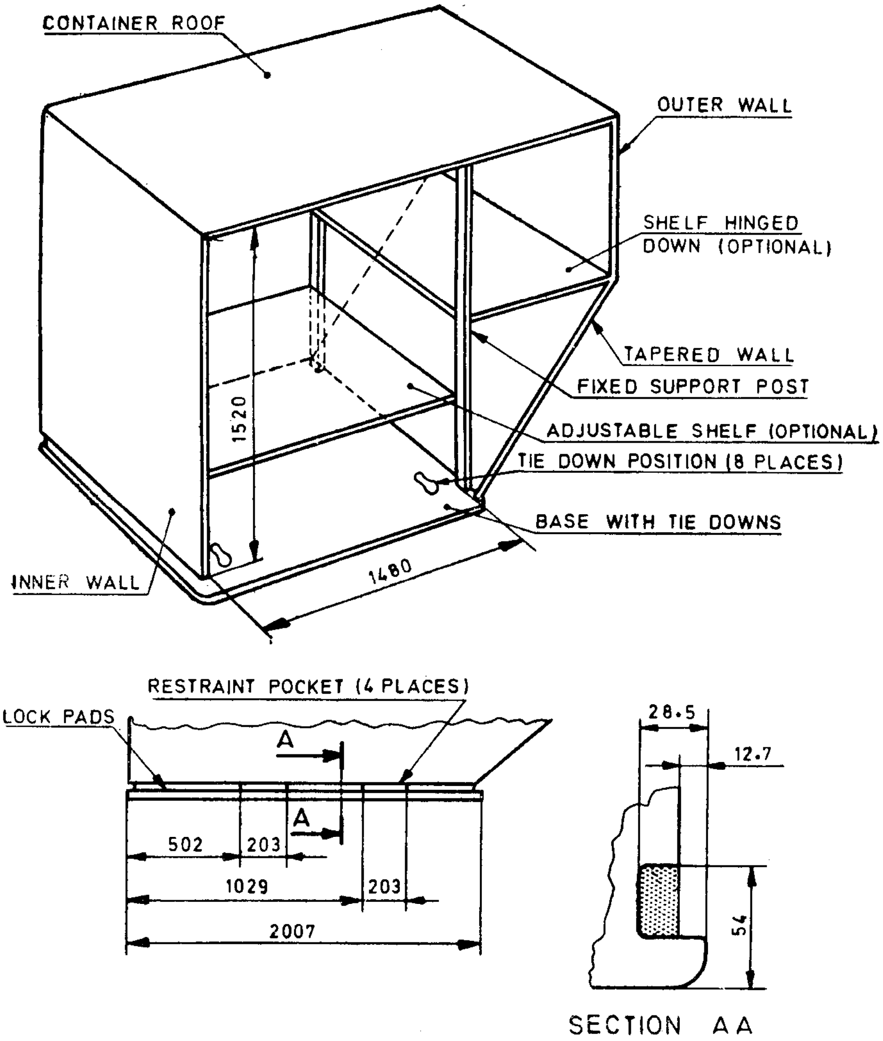


*See Fig. 1

All dimensions in millimetres.

FIG. 2 CONTAINER BASE DETAILS



▨ INDICATES AREA AVAILABLE FOR DOOR LOCKING MECHANISM ALSO SHOWN ARE OPTIONAL METHODS OF PROVIDING CLEARANCE FOR AIRPLANE RESTRAINT MECHANISM IN LIEU OF CONTAINERS BASE GROOVE.

All dimensions in millimetres.

Fig. 3 Half Width Container Sizes I, IC, II and IIC

6.1.5 A typical base panel construction that meets the above requirements is a 25 mm thick sandwich constructed panel with aluminium skin of 1·3 mm thick on top and 1·6 mm thick on the bottom and 110 to 175 kg/m^3 density balsa core. Other materials may be used which meet the performance capability. Solid aluminium alloy base panels may be used if agreed to by the purchaser.

6.1.6 The base of the container shall have sufficient reinforcements to provide flush type tie-down provisions at locations shown in Fig. 3 and as desired by the operator.

6.1.6.1 Adequate internal seat track type tie-down fittings shall be provided and each fitting shall be rated to pull load of 8 900 N (905 kgf approx) in any direction.

6.2 Container Body

6.2.1 Any attachments between the base and the inboard and outboard panels shall be designed to have a minimum intrusion into the door area. Gussets are allowed at junctions of panels and base or top to transfer bending moments. The size of all such gussets shall be minimum, consistent with the structural requirements.

6.2.2 The top of the container shall be self-draining and the surface shall be designed to be easily cleaned of snow.

6.2.3 To facilitate repair, body assembly component parts shall be readily removable by the use of hand tools and shall be interchangeable.

6.2.4 Two flush handles or straps shall be located on each side panels for manual movement of the container. Each handle will provide an area equivalent to 150 mm wide, 80 mm deep for gripping with gloved hands.

6.3 Doors

6.3.1 The container shall have two doors, one on forward end and one on aft end, to enable loading from either end or both ends simultaneously.

6.3.2 The doors shall be designed to make the maximum internal space of 1 480 mm wide and 1 520 mm high, available for loading. With the container on a 500 mm high dolly, or conveyor system, it shall be possible for one man to open and stow or close the door in not more than 15 seconds.

6.3.3 It shall also be possible to open the doors in an area with 2 250 mm high ceiling when the container is on a 500 mm dolly. To meet this requirement, the door could be in two pieces with hinge parallel to base, or made of fabric, or combination of both, and shall be stowable on top of the container. The door shall be openable with 100 mm high obstacle adjacent to base.

6.3.4 For security purposes, the door shall have a minimum number of positive latches that will sustain the flight loads without unlatching. The latches shall be so designed that when door is locked, they cannot damage or become damaged by adjacent container should they inadvertently be left open or opened during flight. The latches also should be easily unlockable to prevent needless forcing by inexperienced loaders.

6.3.5 The lower edge of each door shall not encroach on the area 15·5 mm from the forward and aft edges of the base. This open area shall extend from inboard to outboard sides of the base to accommodate retaining devices on ground transport equipment (*see* Fig. 2 and 3).

6.3.6 The general purpose container door shall be of full width of the container or maximum rectangle size possible. When the cargo container is configurated primarily for special handling or cargo protection, namely, thermal control, which mandates minimum access to meet the special requirements, it may have only one door on either forward or aft end.

6.3.7 Handles, straps or hand-holds shall be provided on each door for lifting the door and for manual movement of the container. Each handle will provide an area equivalent to 150 mm wide, 75 mm deep for gripping with gloved hand. The handles shall be designed so that they can cause no damage to adjacent containers.

6.3.8 No tools shall be required to open or close the doors or latches. It shall be possible to unlatch and at least partially open the door with the container restrained in the airplane. Door latch and handle design shall preclude damage to container assembly during door stowage with no special attention.

6.3.9 Door handle shall not project from the container door outside profile. The door assembly, the handle assembly and any major part of container assembly shall be interchangeable with those of other containers.

7. OPTIONAL REQUIREMENTS

7.1 Shelves

7.1.1 There may be one, or more, full-width, full-depth shelf (*see* Fig. 3), adjustable by two men at 130 mm pitch through the entire constant cross section within a maximum time of 30 seconds. The topmost portion shall be the stowed portion and shall be close to the container roof so that maximum usable space is available in the container. The shelf attachment and adjustment device shall be manually operatable without the use of tools and shall have positive retention at each selected location.

7.1.1.1 Each shelf adjustment position shall be numbered.

7.1.2 An outboard shelf which shall fold down to be flat on the sloping surface may be installed over the sloping surface of the outboard panel. The shelf position shall be at the juncture of the sloping and vertical surface of outboard panel. A permanent reinforcement shall cover that area of sloping panel not covered by the folded shelf.

7.2 Placard Holder and Pouches — One or more placard holders may be fitted to take 210 × 150 mm destination placards. A fabric window type pouch may be provided to take airline cargo/baggage manifests.

7.3 Colour Code — The container may be self coloured to avoid the need of repainting. However, the container shall provide suitable space for proper identification markings specified in **13**.

7.4 Internal Structure — An optional design with no internal structure, such as centre partition or truss work may be offered. The shelf and door options shall be available in conjunction with this option.

7.5 Venting — The container design shall be capable of providing venting options if required for the carriage of animals or livestock by the operator.

8. ENVIRONMENTAL CONDITIONS

8.1 The container shall be designed and built using materials which will provide maximum serviceability and protection of contents under intended environmental conditions.

8.2 The structural and operational integrity of the container shall be maintained in temperature environments from $-54°C$ to $+71°C$.

8.3 All components of the container shall be protected against deterioration or loss of strength in service due to weathering, corrosion, abrasion or other causes where the type of materials used require such protection.

9. SERVICE CONDITIONS

9.1 The materials utilized for construction of container shall meet the fire-resistance requirements of the appropriate airworthiness statutory body.

9.2 The container shall be designed so as to withstand handling common to air land freight terminal and ramp operation.

9.3 It is necessary that provision be made for closing and sealing the container to meet customs clearance and security requirements.

9.4 The container shall be maintainable to the requirements of airworthiness authority. Repair technique shall be based on standard methods, interchangeable standard parts and commonly used processes.

10. PERFORMANCE TESTING

10.1 General

10.1.1 The containers shall be capable of withstanding the tests given in **10.2**. It is recommended that the rain test be carried out last.

10.1.2 Unless otherwise specified by the purchaser, operational design load factors are employed in all tests. In selected cases tests may be repeated under ultimate load conditions, required for substantiating the analytical data. If this becomes necessary, the container so tested shall not be put to service.

10.1.2.1 The test loads within the containers shall be uniformly distributed.

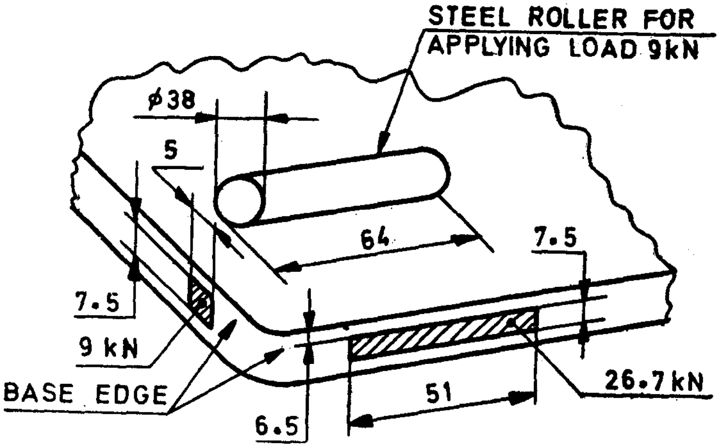
10.1.3 A certificate showing the date of last calibration of the test instrument shall be made available.

10.2 Testing

10.2.1 *Indentation of Container Base* — The container under test shall be placed on a rigid surface and the following loads applied to the base:

a) A load of 9 kN (910 kgf approx) by a steel roller of 38·0 mm diameter and 64 mm length (*see* Fig. 4). The maximum indentation (permanent set) allowed at common location and the lower surface of the base shall be 0·25 mm.

b) A load of 26·7 kN (2 720 kgf approx) normal to the surface over an area 51 mm long and 7·5 mm wide and a load of 9 kN (910 kgf approx) parallel to the base cover an area 5 mm long and 7·5 mm wide. The maximum indentation (permanent set) allowed at any location along the periphery of the base edge shall be 0·13 mm.



All dimensions in millimetres.

FIG. 4 INDENTATION TEST

10.2.2 *Bridging and Cresting* — The container assembly shall be fully loaded and shall be made to negotiate a floor to ramp angle of 10° in either bridging or cresting during terminal handling.

10.2.2.1 A fully loaded container shall not show any permanent deformation, abnormality or distortion of members or assemblies.

10.2.3 *Impact* — The container shall be loaded for the following four conditions of tests. The test configuration is shown in Fig. 5. The containers shall be moved on a roller bed to make an impact against solid stops:

Test Condition	*No. of Impact Cycle*	*Gross Mass in* kg (*Container + Cargo Load*)		*Impact Velocity,* m/s
		Size I	Size II	
1	1 200	795	795	0·61
2	50	1 590	1 285	0·61
3	1 200	795	795	0·31
4	50	1 590	1 285	0·31

NOTE 1 — Set the shelf at the break point during test.

NOTE 2 — Load centre of gravity 864 mm above under the side of the base.

10.2.3.1 For test conditions 1 and 2, a simulated container is to be used to make an impact with the container being tested. The impact shall be made with simulated containers contacting the test container squarely and randomly up to 15° from square.

10.2.3.2 For conditions 3 and 4, the test container shall be moved to make an impact against stops at the base.

10.2.3.3 For both impact load test conditions as given in **10.2.3.1** and **10.2.3.2** uniformly load each shelf and base relative to the volume above the shelf and base on the test and simulated container. Dimensions given in Fig. 5 shall be checked before and after each test to determine distortion.

10.2.3.4 The maximum allowable distortion shall be as shown in Fig. 5. The maximum allowable local indentation at the point of impact shall be 6·5 mm.

10.2.4 *Ultimate Load Test* — The containers shall be able to restrain the ultimate load as given below with centre of gravity as shown in Fig. 6 and with standard restraints shown in Fig. 6, 7 and 8:

Condition	*Ultimate Design Loads in* kg
Forward and aft	1 930
Side	1 390
Up	3 595
Down	6 545

NOTE — Conditions 'forward and aft' and 'side' should be tested in conjunction with a 1 930 kg down load.

10.2.4.1 The containers shall be loaded as given above and the centre of gravity location specified in Fig. 6 and restrained as shown in Fig. 6, 7 and 8. This shall be repeated for all principal conditions and the tests shall be made in the most adverse conditions of the centre of gravity.

10.2.5 *Deflection* — The containers shall be loaded in accordance with the following table and the centre of gravity as shown in Fig. 6 and restrained as shown in Fig. 6, 7 and 8:

Condition	*Load in* kg
Forward and aft	1 285
Side	925
Up	2 395
Down	4 365

NOTE — An additional load of 1 285 kg acting downwards shall be applied while testing 'forward and aft' and 'side'.

10.2.5.1 The deflection limits of the container shall not exceed those shown in Fig. 9 and 10.

10.2.6 *Ball Test* — The container base surface, or a representative portion thereof, shall be kept on a steel ball of 25 mm diameter and a load of 135 kg applied to it. The base shall not show a permanent indentation exceeding 0·5 mm.

10.2.7 *Ball Castor Test* — The base, or a representative portion thereof, shall be subjected to a uniformly distributed load of 95 kg supported by four 25 mm diameter steel ball castors on a 127 mm grid pattern. The base shall be moved over the castors for a minimum of 5 000 passes along a fixed line in each of the two directions 90° to, and intersecting, each other. The length of stroke shall be approximately 305 mm.

10.2.7.1 At the end of the test the base shall show no evidence of deterioration of the base/ball castors interface surface.

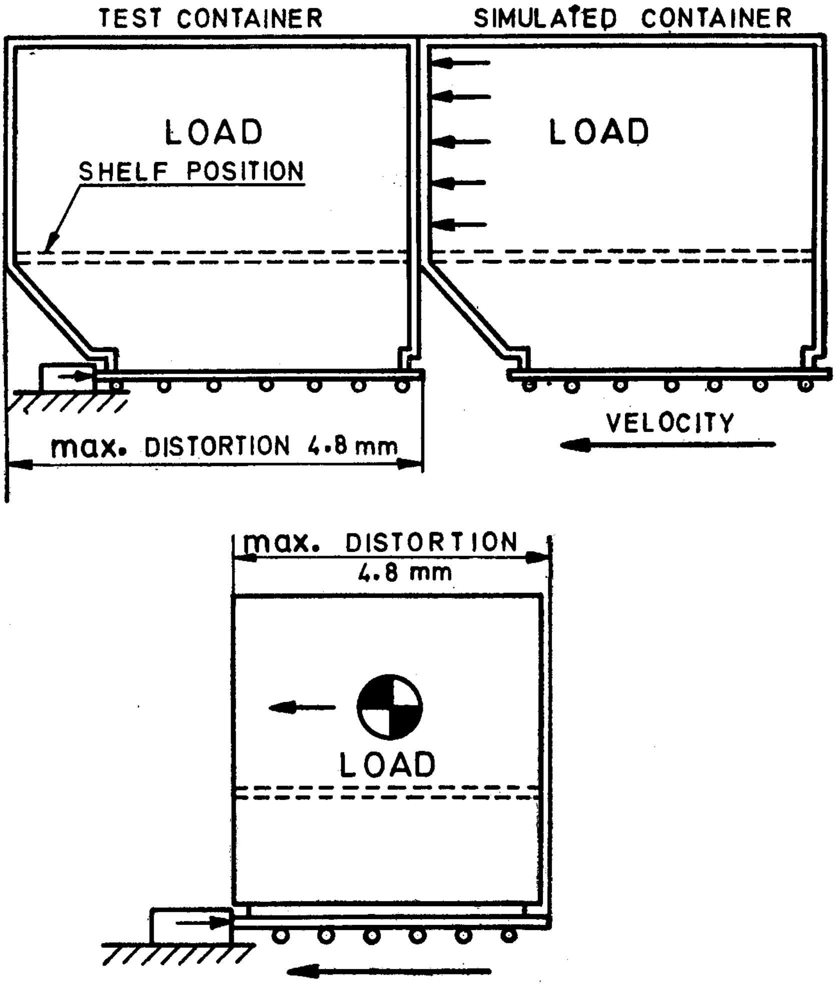
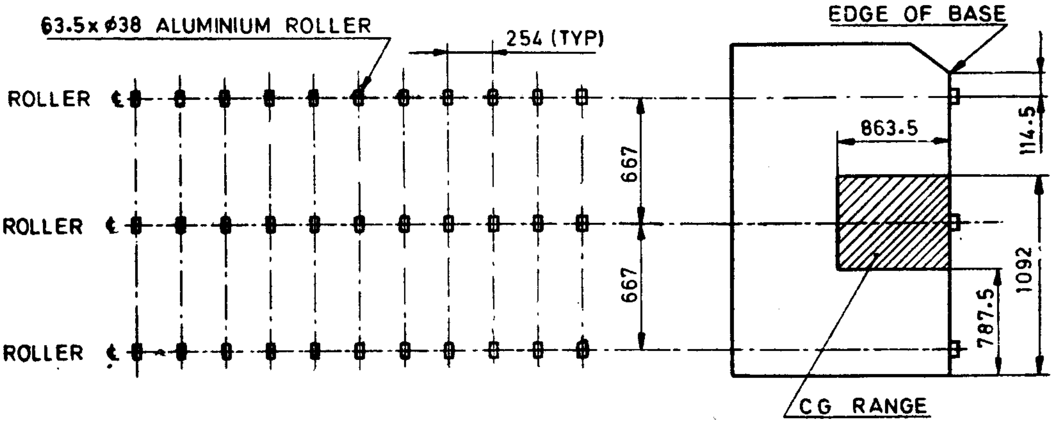
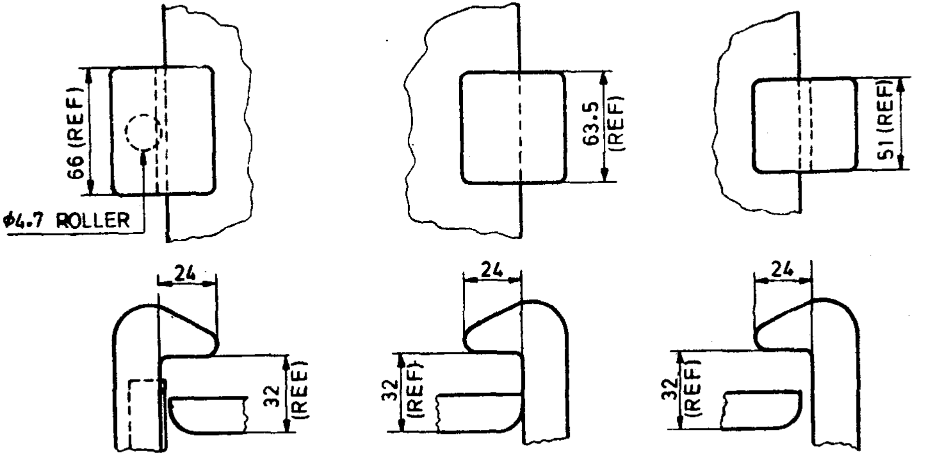


FIG. 5 IMPACT TEST



All dimensions in millimetres.

FIG. 6 CONTAINER LOADED USING 80% *Min* OF THE TOTAL VOLUME



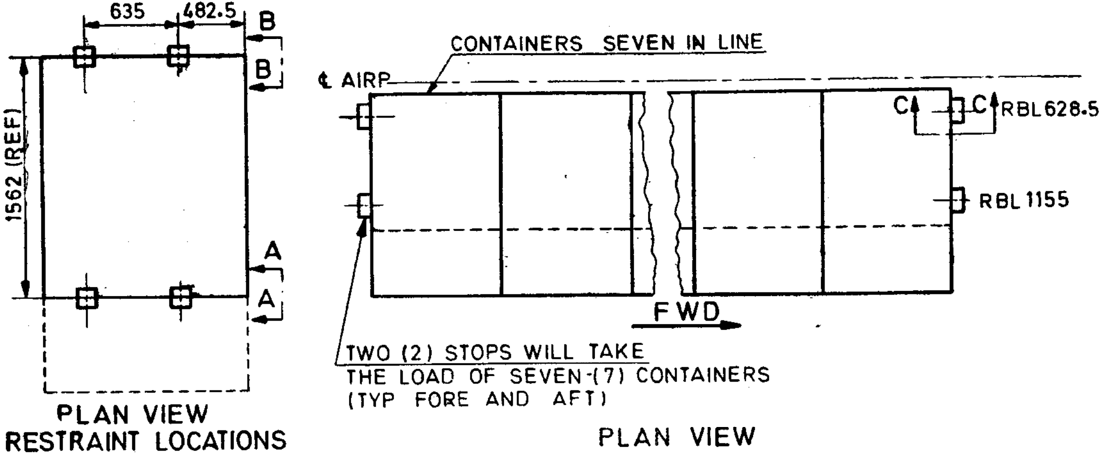
AA ROTATED 90° CW
SIDE GUIDES
(SIDE AND VERTICAL RESTRAINT)
SEE FIG. 8

CC
FWD AND AFT
STOPS
SEE FIG. 8

BB ROTATED 90° CW
CENTER GUIDES
(SIDE AND VERTICAL RESTRAINT)
SEE FIG. 8

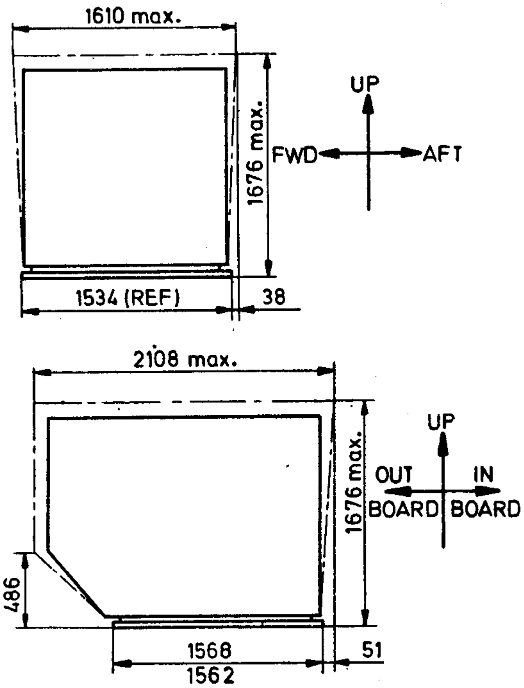
All dimensions in millimetres.

FIG. 7 RESTRAINT DETAILS



All dimensions in millimetres.

FIG. 8 FORE AND AFT STOP LOCATIONS



All dimensions in millimetres.

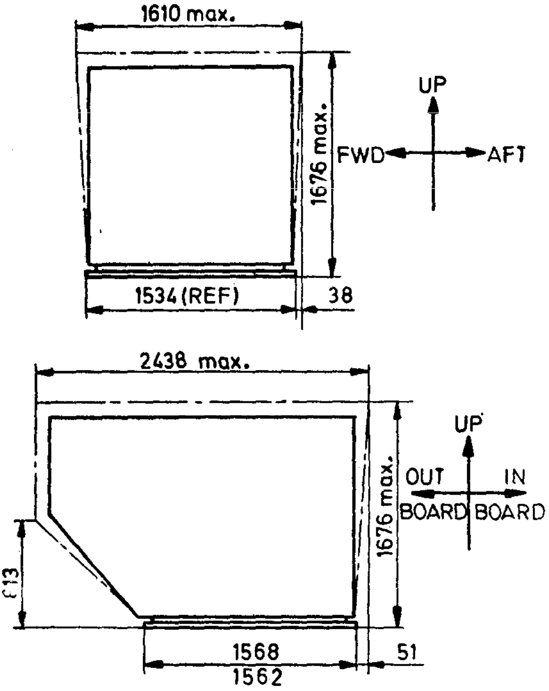
FIG. 9 DEFLECTION LIMITS SIZE I CONTAINER

10.2.8 *Abrasion (for Plastic Coated or Magnesium Alloy Base Material)* — Three samples of the container as base assembly material shall be subjected to abrasion test (details given in Appendix A).

10.2.8.1 The samples shall not show loss of weight exceeding the following values:

After 1 000 revolutions	0·015 g
After 2 000 revolutions	0·015 g + 0·005 g
After 5 000 revolutions	0·015 g + 0·005 g + 0·030 g
Total not to exceed	0·050 g

10.2.9 *Rain Test* — Water shall be sprayed over the container, particularly around the door, to simulate a heavy driving rain equivalent to what would be experienced by a container secured to an open truck and being transported at a speed of 80 km/h.



All dimensions in millimetres.

FIG. 10 DEFLECTION LIMITS SIZE II CONTAINERS

10.2.9.1 On completion of the test, the container shall be free from penetration of water.

10.2.10 *Static Load Test* — A fully loaded container shall be supported on a simulated conveyor system as shown in Fig. 6. Shelves, where provided, shall also be loaded to 545 kg. The doors of the container shall be fully opened and closed for three complete cycles during the test.

10.2.10.1 Doors shall open and close without any significant binding and the locks shall engage and disengage easily.

10.2.10.2 Container assembly or any other part showing permanent deformation shall be rejected.

10.2.11 *Ramp Handling* — A fully loaded container shall be moved 10 times over three pallet trailers having roller type conveyor beds arranged at a ramp angle of 10° thereby simulating the bridging and cresting condition.

10.2.11.1 After the test, no structure shall show any evidence of damage, permanent deformation or deterioration and all doors and latches shall operate easily.

10.2.12 *Temperature Resistance*

10.2.12.1 *High temperature* — The closed container shall be placed empty in a suitable test chamber at 71°C ambient temperature for 48 hours. The container assembly doors shall be fully opened and closed for 6 complete cycles during the test. At the end of the test the container shall be evaluated while the structure is at, or near, the test temperature. The container surface shall show no visible damage to the marking or bend on it. The door seals shall show no sign of cracking or softening and the doors shall be operatable with seals intact. The doors and latches shall operate easily and there shall be no evidence of deterioration.

10.2.12.2 *Low temperature* — The closed container shall be placed empty in a suitable test chamber at – 54°C ambient temperature for 48 hours. The container assembly doors shall be fully opened and closed for six complete cycles during the test. At the end of the test the structure shall meet all the requirements of **10.2.12.1**.

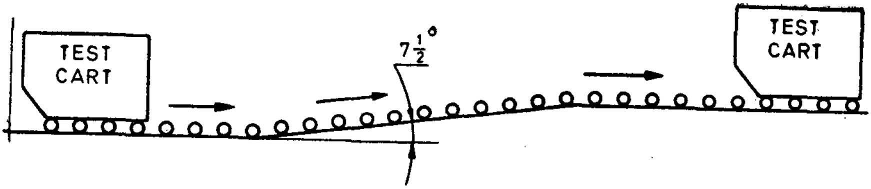
10.2.13 *Humidity Test* — The container assembly shall be subjected to standard humidity conditions and retained in those conditions for 96 hours. The container assembly doors shall be fully opened and closed for six complete cycles after the test. The doors shall operate normally with no prevalent binding and the locks shall engage and disengage with ease. At the completion of the test there shall be no evidence of the deterioration and the finish of the metal components shall meet the corrosion resistance requirements.

10.2.14 *Airline Test* — The test container shall be loaded to a gross mass of 1 590 kg and run down with the roller bed twice (*see* Fig. 11). Subsequently the container shall be allowed to run down with the momentum in the same conditions and be brought to a stop against the outboard edge of the base panel. The dimensions of the container before and after each of the above tests shall be measured for distortion, damage, etc.

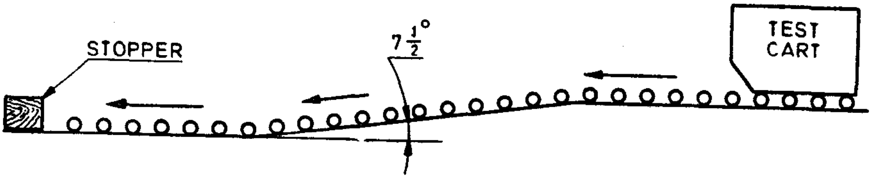
10.2.14.1 The container shall be acceptable if no visible damages are observed.

11. PROTOTYPE ASSEMBLY COMPLIANCE

11.1 Prototype container assembly shall be subjected to all the tests given in **10.2** and shall be certified for operation by the approving authority.



RUN DOWN TEST (WITH LEAST MOMENTUM)



HIT DOWN TEST (WITH MOMENTUM)

FIG. 11 AIRLINE TEST

11.2 The final acceptance of the prototype shall be on the basis of satisfactory compliance to a typical airline acceptance test conducted in accordance with **10.2.14** so as to ensure the internationally acceptable quality of the product.

12. PRETEST INSPECTION

12.1 The test unit shall be inspected by the operator in co-ordination with the approving authority prior to airworthiness approval testing.

12.2 Upon completion of the production prototype unit, the same shall be provided to the operator for aircraft fit check and under normal airline operating conditions.

12.3 The acceptable and approved container may be certified for use in complete assembly or as kit with approved preassembly instructions.

13. MARKING

13.1 All containers conforming to this standard shall be marked in accordance with Indian Standards and shall contain the following information:

a) The marking shall be shown at the top on the outboard and inboard side panels or both ends of container in such a manner that good readability is ensured under all phases of handling; and

b) The placards so installed shall have the number of this Indian Standard, ID code number, actual empty mass and side identification.

13.2 The manufacturers placard shall be indicated on the container which shall include the vendor's name and address, part number, type approval number and serial number of the container.

APPENDIX A

(*Clause* 10.2.8)

ABRASION TEST FOR PLASTIC COATED OR MAGNESIUM BASE MATERIALS

A-1. GENERAL

A-1.1 This test method has been adopted by the International Air Transport Association (Doc: IATA 50/5) from the US Federal Test Methods.

A-2. TEST SPECIMEN

A-2.1 The specimen shall be a disk of 100 mm in diameter, or a plate 100 mm square, with a 6 mm diameter hole in the centre.

A-3. APPARATUS

A-3.1 Abrader — A Taber abraser or equivalent testing machine is employed. The specimen table on the abrader shall run true, that is, in one plane without wobble.

A-3.2 Wheels — The wheels used shall be CS-10 Calibrase and shall not be more than 6 months old. The durometer hardness value shall be less than 80. S-11 emery discs shall be used to true and clean the wheels before the new wheels are used, before each new test and after every 1 000 revolutions. Coarse particles that adhere to the face of the wheels as a result of the refacing operation shall be removed by blowing lightly on the wheels or by rotating the wheels very lightly against the ends of a flexible bristle brush. The faces of the wheels shall not be brushed in a stationary position.

A-3.3 Load — A load of 500 g on each wheel shall be used for all tests.

A-4. PROCEDURE

A-4.1 The specimen shall be conditioned to an ambient temperature of 27°C and 65 percent relative humidity as specified in IS : 196-1966*, the conditioning period prior to the test being 96 hours.

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*Atmospheric conditions for testing (*revised*).

A-4.1.1 The specimen shall be wiped with a clean, dry cotton cloth and weighed on a chemical balance to the nearest 0·1 mg. The wiping and weighing operation is to be repeated till constant weight is attained.

A-4.2 Abrasion — The specimen is subjected to abrasion on the abrader. The weighings shall be taken after 1 000, 2 000 and 5 000 revolutions. The abraded specimen shall be repeatedly wiped with a clean dry cloth and weighed until constant weight is attained.

A-4.3 Elimination of Static Charge — The rubbing of the abrading wheels on the surface of some plastics generates a static charge. In order to eliminate the effect on the weighings the specimen should be allowed to stand for an interval of 10 to 20 minutes. In some cases charge removal materials may have to be used.

A-4.4 The materials should be abraded until smooth, before the tests are started. The specimen should be subjected to at least 100 revolutions of abrasion with the same wheel and load which are to be used in determining the abrasion resistance.

INDIAN STANDARDS

ON

CONTAINERS AND PALLETS FOR AIR TRANSPORT

IS:

7073 (Part I)-1973 Glossary of terms relating to air cargo pallets and containers: Part I Air cargo pallets

7074-1973 General requirements for air cargo pallets

7917 (Part I)-1975 Air cargo freight containers: Part I General requirements

7917 (Part II)-1975 Air cargo freight containers: Part II Testing

8169 (Part I)-1976 Air cargo containers — main deck container (2 438 × 2 438 mm) for high capacity aircraft: Part I General requirements

8169 (Part II)-1976 Air cargo containers — main deck container (2 438 × 2 438 mm) for high capacity aircraft: Part II Testing

8397-1977 Air cargo base sandwich panel

8589-1977 Net assembly to secure cargo on aircraft pallets: Part I General requirements

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